

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
9 September 2005 (09.09.2005)

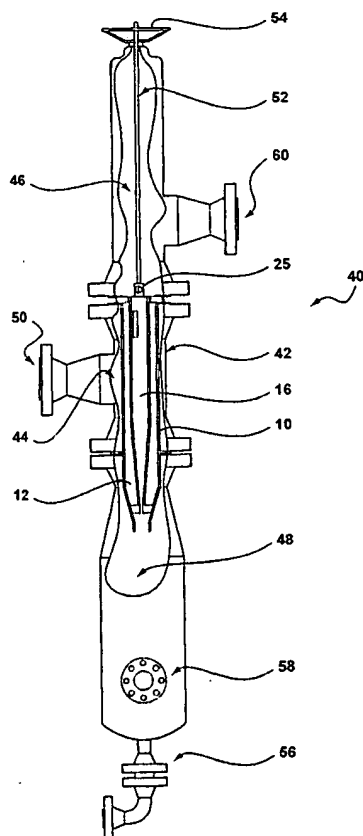
PCT

(10) International Publication Number  
**WO 2005/082541 A1**

- (51) International Patent Classification<sup>7</sup>: **B04C 5/28**
- (21) International Application Number:  
PCT/GB2005/000718
- (22) International Filing Date: 25 February 2005 (25.02.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
0404417.8 27 February 2004 (27.02.2004) GB
- (71) Applicant (for all designated States except US): **KCC GROUP LIMITED** [GB/GB]; 111 Windmill Road, Sunbury on Thames, Middlesex TW16 7EF (GB).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **PARKINSON, David, John** [GB/GB]; Arodene, Walton-in-Gordano, Clevedon, North Somerset BS21 7AR (GB).
- (74) Agent: **AKERS, Noel, James**; N.J Akers & Co., Grey Friars, Spring Road, Harpenden, Hertfordshire AL5 3PP (GB).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,

[Continued on next page]

(54) Title: CYCLONE ASSEMBLY AND METHOD FOR INCREASING OR DECREASING FLOW CAPACITY OF A CYCLONE SEPARATOR IN USE



(57) Abstract: A cyclone separator (40) includes a housing (42), in which a cyclone assembly (10) is contained. The housing (42) has an inflow chamber (44), an overflow chamber (46) and a discharge chamber (48). The cyclone assembly (10) has an inner cyclone liner (16) positioned concentrically within a cyclone chamber (12). A displacement means (52) is provided for displacing the inner cyclone liner (16) axially from an operative position in the cyclone chamber (12) to an inoperative position in the overflow chamber (46) of the housing (42). The cyclone chamber (12) has a larger internal diameter than the inner cyclone liner (16), therefore, when the inner cyclone liner is moved to the inoperative position, the flowrate through the cyclone assembly is increased.

WO 2005/082541 A1



FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,  
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG).

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**Published:**

— *with international search report*